

WHAT IS CLAIMED IS:

1. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come
5 apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the keyboard further includes:

10 first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

15 a cover member including a cover part, a pair of supporting elements formed on both ends of the cover part, first slots formed in the supporting elements respectively to correspond to each first support part, and second slots formed in the supporting elements to correspond to each second support part;

20 first support shafts supported in the first support parts respectively, each first support shaft passing through each first slot with play;

second support shafts supported in the second support parts respectively, each second support shaft passing through each second slot with play;

25 when the first and second keyboard units are rotated from the horizontally arranged state to the superposed state, the cover member is synchronously turned by cooperation between the first support shafts and the first slots and between the second support shafts and the second slots, and

the cover part of the cover member covers end faces of the first and second keyboard units in the superposed state and the support elements of the cover member cover side portions of each end face of the first and second keyboard units.

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2. The foldable keyboard according to claim 1, wherein

while the first and second keyboard units are rotated from the horizontally arranged state to the superposed state, the cover part of the cover member covers the end faces of the first and second keyboard units and the support elements of the cover member cover the side portions of each end face of the first and second keyboard units.

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3. The foldable keyboard according to claim 1 further including:

a first link turnably supported by the first support shaft passing through the first slot with play;

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a second link turnably supported by the second support shaft passing through the second slot with play; and

a joint rod which pivotally joints the first and second links to allow for turning of the links with respect to each other.

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4. The foldable keyboard according to claim 3 further including:

third slots formed in the supporting elements in a perpendicular direction to a longitudinal direction of the first and second slots; and

a projection formed in the joint rod and inserted in the third slot with play;

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wherein the projection is slid in the third slot in synchronization with the rotation of the first and second keyboard units.

5. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the first keyboard unit includes a first base plate and a first unit comprising a first support plate provided to be turnable in a horizontal direction on the first base plate and a plurality of key switches arranged on the first support plate;

the second keyboard unit includes a second base plate and a second unit comprising a second support plate provided to be turnable in a horizontal direction on the second base plate and a plurality of key switches arranged on the second support plate;

the keyboard further includes:

first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

a cover member including a pair of supporting elements which are turnably connected with the first and second support parts respectively so that the cover member covers end faces of the first and second keyboard units in the superposed state; and

a pair of grooves which are formed on both sides of one of the support elements and in which circular arc faces of the first and second support plates are slidably engaged.

6. The foldable keyboard according to claim 5 further including:

first slots formed in the supporting elements respectively to correspond to each first support part;

5 second slots formed in the supporting elements respectively to correspond to each second support part;

first support shafts supported in the first support parts, each first support shaft passing through each first slot with play; and

10 second support shafts supported in the second support parts respectively, each second support shaft passing through each second slot with play.

7. The foldable keyboard according to claim 6 further including:

a first link turnably supported by the first support shaft passing through the first slot with play;

15 a second link turnably supported by the second support shaft passing through the second slot with play; and

a joint rod which pivotally joints the first and second links to allow for turning of the links with respect to each other.

20 8. The foldable keyboard according to claim 7 further including:

third slots formed in the supporting elements in a perpendicular direction to a longitudinal direction of the first and second slots; and

a projection formed in the joint rod and inserted in the third slot with play;

25 wherein the projection is slid in the third slot in synchronization with the rotation of the first and second keyboard units.

9. A foldable keyboard including a first keyboard unit and a second

keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the first keyboard unit includes a first base plate and a first unit comprising a first support plate provided to be turnable in a horizontal direction on the first base plate and a plurality of key switches arranged on the first support plate;

the second keyboard unit includes a second base plate and a second unit comprising a second support plate provided to be turnable in a horizontal direction on the second base plate and a plurality of key switches arranged on the second support plate;

the keyboard further includes:

first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

a cover member including a pair of supporting elements which are turnably connected to the first and second support parts respectively so that the cover member covers end faces of the first and second keyboard units in the superposed state; and

the cover member inhibits turning of the first and second support plates in the superposed state and in course of rotation from the superposed state to the horizontally arranged state.

10. The foldable keyboard according to claim 9 further including:

first slots formed in the supporting elements respectively to correspond to each first support part;

second slots formed in the supporting elements respectively to correspond to each second support part;

5 first support shafts supported in the first support parts, each first support shaft passing through each first slot with play; and

second support shafts supported in the second support parts respectively, each second support shaft passing through each second slot with play.

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11. The foldable keyboard according to claim 10 further including:

a first link turnably supported by the first support shaft passing through the first slot with play;

15 a second link turnably supported by the second support shaft passing through the second slot with play; and

a joint rod which pivotally joints the first and second links to allow for turning of the links with respect to each other.

12. The foldable keyboard according to claim 11 further including:

20 third slots formed in the supporting elements in a perpendicular direction to a longitudinal direction of the first and second slots; and

a projection formed in the joint rod and inserted in the third slot with play;

25 wherein the projection is slid in the third slot in synchronization with the rotation of the first and second keyboard units.

13. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the

first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the keyboard further includes:

first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

a first link turnably supported in the first support part through the first support shaft;

a second link turnably supported in the second support part through the second support shaft; and

a joint rod which pivotally joints the first and second links to allow for turning of the links with respect to each other.

14. The foldable keyboard according to claim 13, wherein

the foldable keyboard further includes a cover member including a cover part, a pair of supporting elements formed on both ends of the cover part, first slots formed in the supporting elements respectively to correspond to each first support part, and second slots formed in the supporting elements to correspond to each second support part;

the first support shaft passes through the first slot with play and is supported in the first support part;

the second support shaft passes through the second slot with play and is supported in the second support part;

when the first and second keyboard units are rotated from the

horizontally arranged state to the superposed state, the cover member is synchronously turned by cooperation between the first support shafts and the first slots and between the second support shafts and the second slots; and

5 the cover part of the cover member covers end faces of the first and second keyboard units in the superposed state.

15 15. The foldable keyboard according to claim 14 further including:
third slots formed in the supporting elements in a perpendicular
10 direction to a longitudinal direction of the first and second slots; and
a projection formed in the joint rod and inserted in the third slot with play;

wherein the projection is slid in the third slot in synchronization with the rotation of the first and second keyboard units.

15 16. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use
20 of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the keyboard further includes:

25 first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

a cover member including a pair of supporting elements which are

turnably connected to the first and second support parts respectively and a cover part formed between the supporting elements, the cover member being adapted to cover end faces of the first and second keyboard units in the superposed state;

5 a device support member which is raised to a standing orientation in conjunction with the rotation of the first and second keyboard units in a direction that they come apart; and

 a keyboard stabilizing member provided in the cover part of the cover member so that the stabilizing member is pulled in an axial direction of
10 the rotation rod to outside of the first and second keyboard units;

 the keyboard stabilizing member is in a pulled state outside the first and second keyboard units while the device support member supports a device to prevent the first and second keyboard units from so tilting as to partially lift their bottoms from a setting plane.

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17. The foldable keyboard according to claim 16 further including:

 first slots formed in the supporting elements respectively to correspond to each first support part;

 second slots formed in the supporting elements respectively to
20 correspond to each second support part;

 first support shafts supported in the first support parts, each first support shaft passing through each first slot with play; and

 second support shafts supported in the second support parts respectively, each second support shaft passing through each second slot
25 with play.

18. The foldable keyboard according to claim 17 further including:

 a first link turnably supported by the first support shaft passing

through the first slot with play;

a second link turnably supported by the second support shaft passing through the second slot with play; and

5 a joint rod which pivotally joints the first and second links to allow for turning of the links with respect to each other.

19. The foldable keyboard according to claim 18 further including:

third slots formed in the supporting elements in a perpendicular direction to a longitudinal direction of the first and second slots; and

10 a projection formed in the joint rod and inserted in the third slot with play;

wherein the projection is slid in the third slot in synchronization with the rotation of the first and second keyboard units.

15 20. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated
20 about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the first keyboard unit includes a first base plate with a first frame portion and a first unit comprising a first support plate with a first wall member provided to be turnable in a horizontal direction on the first
25 base plate and a plurality of key switches arranged on the first support plate;

the second keyboard unit includes a second base plate with a second frame portion and a second unit comprising a second support plate with a

second wall member provided to be turnable in a horizontal direction on the second base plate and a plurality of key switches arranged on the second support plate;

the keyboard further includes:

5 first support parts formed in opposite corners in one side of the first keyboard unit;

second support parts formed in opposite corners in one side of the second keyboard unit;

10 a cover member including a pair of support elements which are turnably connected to the first and second support parts respectively so that the cover member covers end faces of the first and second keyboard units in the superposed state; and

15 a pair of first and second pawl members formed in one of the support elements of the cover member, each pawl member having pawl on a top end thereof;

wherein the pawl of the first pawl member contacts with a wall plane of the first wall member and the pawl of the second pawl member contacts with a wall plane of the second wall member when the first and the second keyboard unit are horizontally arranged with each other, and

20 wherein the pawl of the first pawl member engages with a shoulder formed between the first frame portion and the first wall member and the pawl of the second pawl member engages with a shoulder formed between the second frame portion and the second wall member, when the first support plate is turned in the horizontal direction on the first base plate
25 and the second support plate is turned in the horizontal direction on the second base plate, thereby the first and second keyboard units are inhibited from folding thereof.

21. A foldable keyboard including a first keyboard unit and a second keyboard unit which are rotatably connected by a rotation rod so that the first and second keyboard units are rotated about the rotation rod to come apart from each other into an unfolded, horizontally arranged state for use of the keyboard, whereas the first and second keyboard units are rotated about the rotation rod to come close to each other into a folded, superposed state for nonuse of the keyboard,

wherein the first keyboard unit includes a first base plate with a first frame portion and a first unit comprising a first support plate with a first wall member provided to be turnable in a horizontal direction on the first base plate and a plurality of key switches arranged on the first support plate;

the second keyboard unit includes a second base plate with a second frame portion and a second unit comprising a second support plate with a second wall member provided to be turnable in a horizontal direction on the second base plate and a plurality of key switches arranged on the second support plate;

the keyboard further includes:

a first locking groove formed in the first wall member;

a first slide groove formed in the first wall member, the first slide groove being connected to the first locking groove and extended toward the rotation rod;

a second locking groove formed in the second wall member;

a second slide groove formed in the second wall member, the second slide groove being connected to the second locking groove and extended toward the rotation rod;

a first locking member having a projection and a shaft connected to the projection, the projection being slidably arranged within the first

locking groove and the shaft being slidably arranged in the first slide groove;

5 a second locking member having a projection and a shaft connected to the projection, the projection being slidably arranged within the second locking groove and the shaft being slidably arranged in the second slide groove;

a first spring arranged in the first locking groove, the first spring pressing the shaft of the first locking member toward the rotation rod;

10 a second spring arranged in the second locking groove, the second spring pressing the shaft of the second locking member toward the rotation rod;

15 wherein both end planes of the shafts of the first locking member and the second locking member contact with each other when the first and the second keyboard units are horizontally arranged, thereby the first and second keyboard units are made turnable in the horizontal direction, and

20 wherein the projection of the first locking member is locked in the first locking groove and the projection of the second locking member is locked in the second locking groove when the first and second keyboard units are in a state other than a state that the first and second keyboard units are horizontally arranged, thereby the first and second keyboard units are inhibited from turning in the horizontal direction.